

Group I Muscles

external oblique
 internal oblique
 transverse abdominis
 rectus abdominis
 latissimus dorsi
 longissimus dorsi

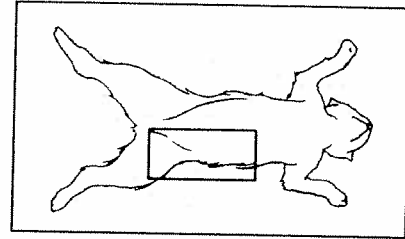
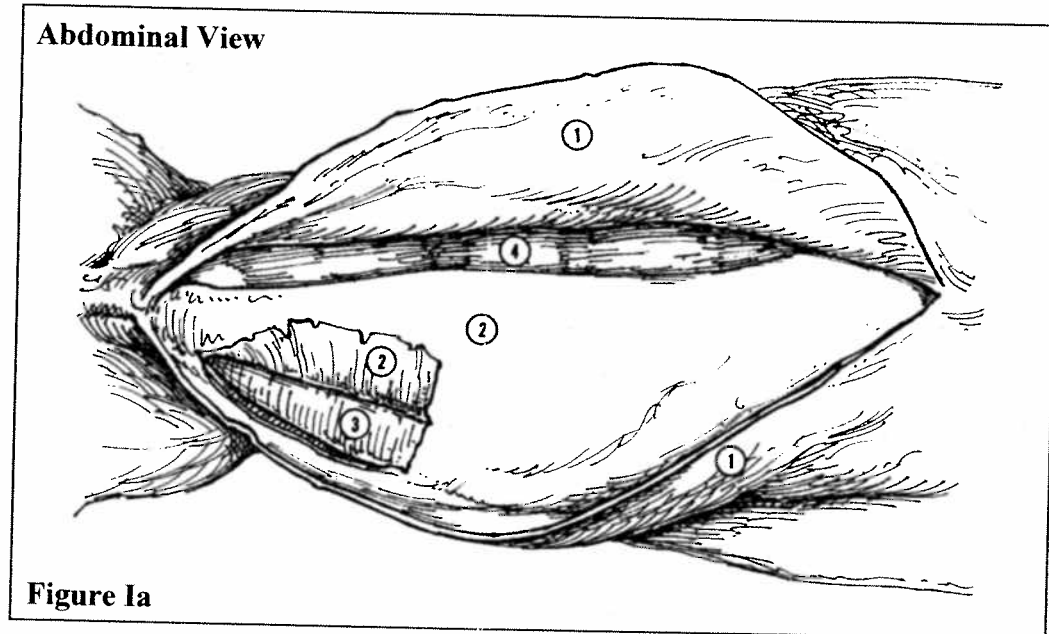
**Muscle identification**

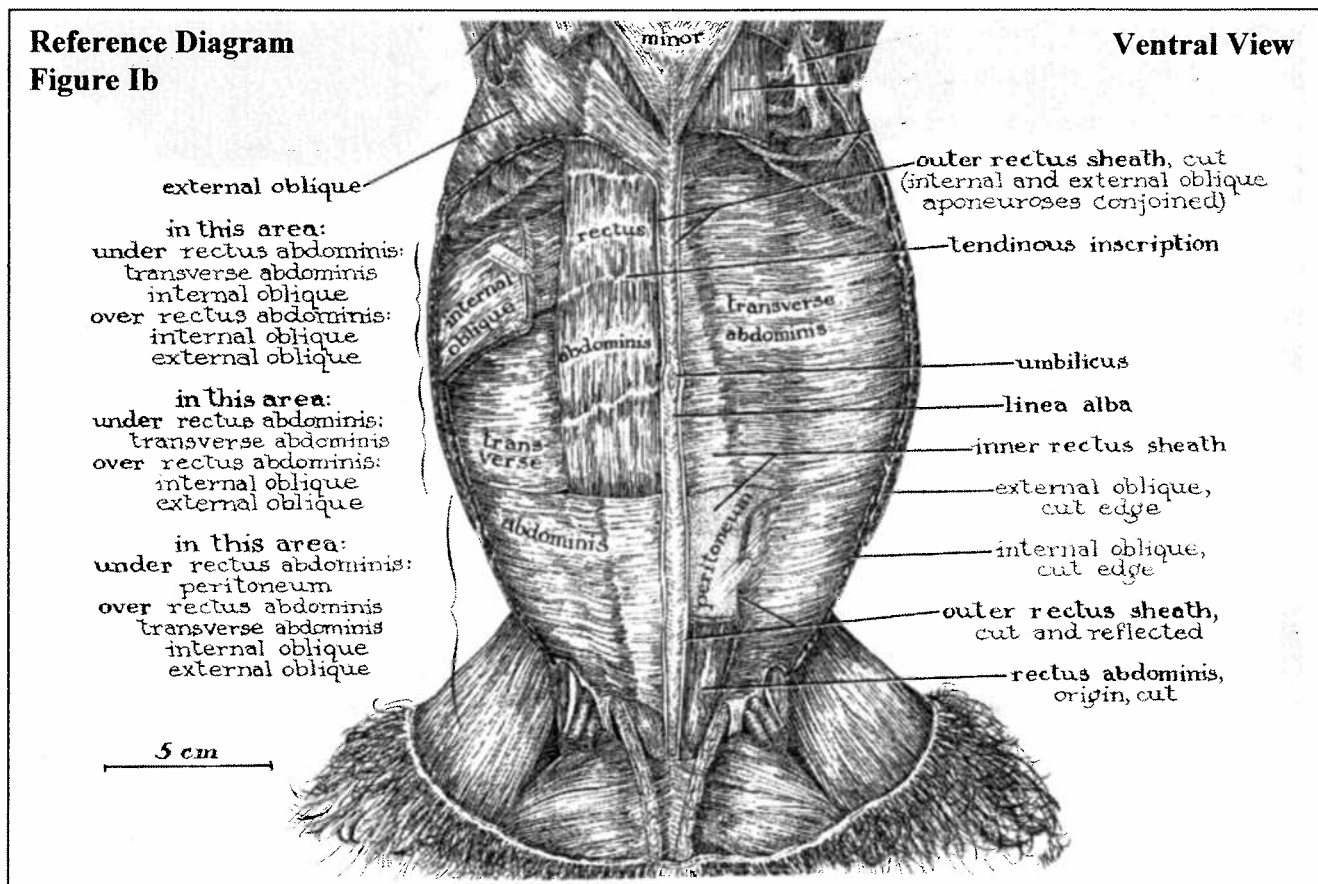
Figure 1a Abdominal Muscles
 1. external oblique
 2. internal oblique
 3. transverse abdominis
 4. rectus abdominis

INSTRUCTIONS FOR DISSECTION: FIGURE 1A

There are three thin layers of muscle covering the abdominal cavity (Figure 1a). You must be careful in this dissection not to cut too deeply. Determine origin and insertion of the **external oblique**, the first layer, and mark off the midpoint between origin and insertion with a pencil or other tool. This muscle must be transected to see the one below it, and the transection line will be slightly curved due to the shape of the muscle. Do not use the aponeurosis, which forms the insertion of this muscle, when measuring its width. Transect midway between borders of the muscular portion. Begin the cut with the tip of the scissors and *gradually* extend it until you can get a probe between the external oblique and the **internal oblique**, the second layer (see Figure 1a). When you are sure that you haven't gone too deep, extend the transection line and separate as you go along with your fingers. Bring each half back to origin and insertion.

Near the insertion on the **linea alba** (midline) you will see a long, ribbonlike muscle, the **rectus abdominis**. Expose as much of it as you can. You can't see the anterior part of the muscle at this time, but it will be seen in a later dissection.

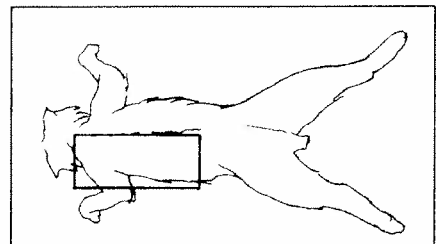
To separate the internal oblique from the **transversus abdominis**, the third or innermost layer, use extreme caution as both muscles are very thin. Sometimes the transversus abdominis is so thin that its fibers separate and you can see the **parietal peritoneum** (lining of the body cavity) between them. Separate as much of the internal oblique as you can and reflect the cut ends. Do not make your transection line too close to the broad aponeurosis by which the muscle inserts. Note that the direction of the fibers of the external oblique and internal oblique are almost at right angles to one another.



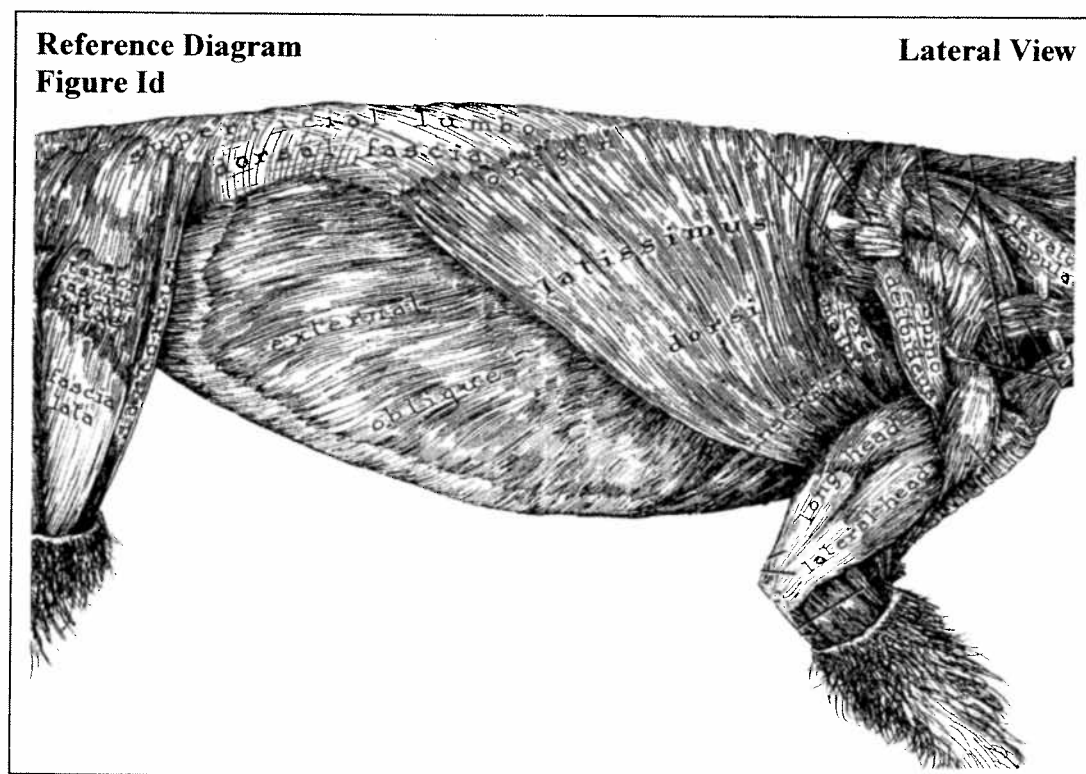
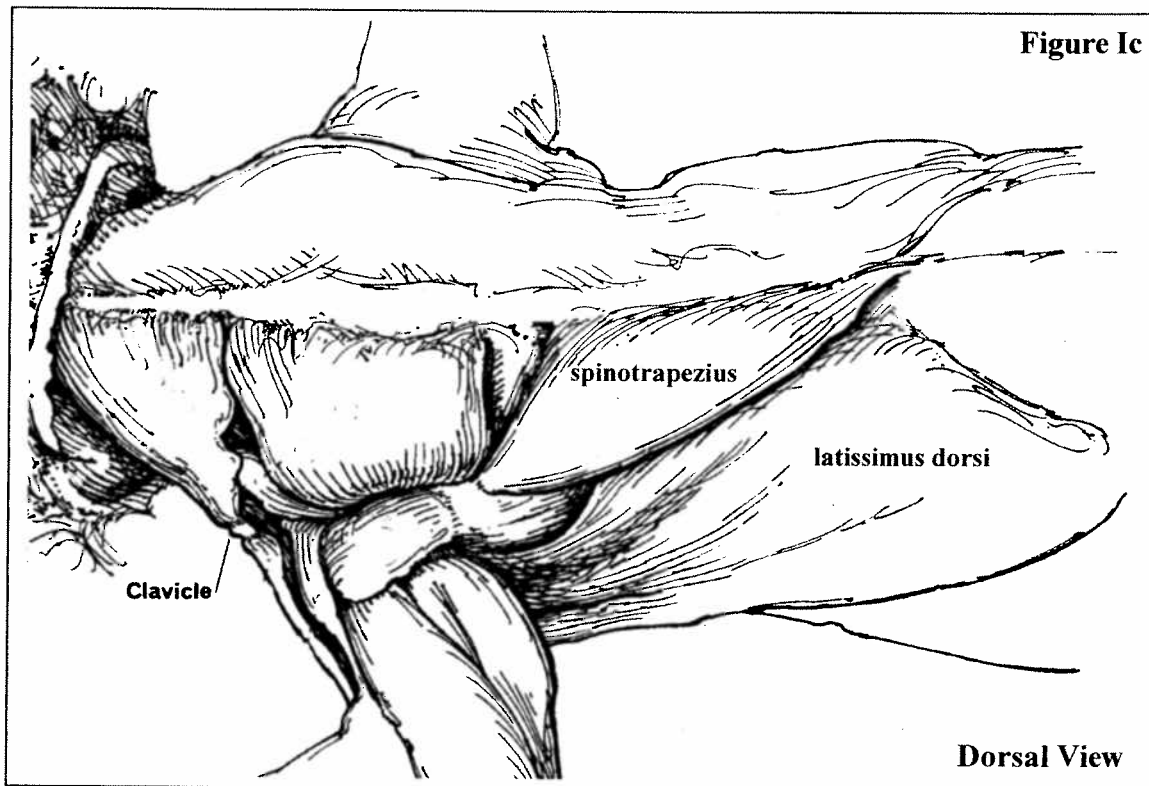
INSTRUCTIONS FOR DISSECTION: FIGURE 1C

latissimus dorsi

The **latissimus dorsi** muscle has its origin in the superficial **lumbodorsal fascia** and from the tips of the spinous processes of thoracic and lumbar vertebrae from about the fifth thoracic to the sixth lumbar. It inserts through the bicipital arch into the mediad surface of the shaft of the humerus. It pulls the arm caudodorsad.



Posterior to the spinotrapezius is the very large **latissimus dorsi**. Free it between the origin and insertion. (Origin: spines of the thoracic and lumbar vertebrae – Insertion: intertubular groove of the humerus.) Since it originates by a broad, tough aponeurosis along the mid line of the back it will be difficult to loosen all the way to its origin. (See **Figure 1c**.)



INSTRUCTIONS FOR DISSECTION: FIGURE 1E

longissimus dorsi

With the **longissimus dorsi**, we are getting an introduction to a complicated group of muscles connected with the vertebral column. These begin caudally as a large longitudinal mass of muscle lying between the transverse process of the vertebrae and the spinous process. This whole mass of muscle is often called the common dorsal extensor of the vertebral column. The **longissimus dorsi** covered by the deep lumbodorsal fascia is the larger part of this mass. In order to see the posterior end of the muscle, cut off the tough fascia in a rectangular block (See Figure 1e).

